CHAPTER I
INTRODUCTION

1.1 Backgrounds

Education is one of the important processes in the development of an individual's personality, attitude and behavior. Education also affect the ethical value and moral, and also partake in the development of mental state, physical state and knowledge of said individual (Sudarsana, 2017). Multimedia is directly involved in the process of the education. Multimedia is a media which involve two or more media element which are texts, graphics, images, animations and videos (Darmawan, Setiawati, Supriadie, & Alinawati, 2016). In Indonesia, K-13 Curriculum is used as a standard education curriculum. One of K-13 Curriculum target is to deliver the knowledge about universe and history of the universe is part of it (Koto, Kurniawan, & Hendriyanto, 2016). K-13 Curriculum strongly suggests the usage of multimedia as a Learning Media (Sinambela, 2017).

Learning Media (Ella, 2016), is a media with the purpose of delivering message or information in a learning process whereas to attract students' attention and interest during learning. Learning Media is used to assist students during learning process so as the process itself is more efficient and more effective (Aziz & Suparman, 2015). Animation as Learning Media is a media to assist users in conveying and delivering information through moving Pictures. It can improve the

1 **Universitas Internasional Batam**

understanding of the users towards the information delivered and also improve the result of the learning process, because during the process, the attention and the focus of said users are more interested towards the media used, thus improving learning motivation of said users (Ismawati & Tandyonomanu, 2016). Saputro and Saputra (2015) created a Learning Media of Human Digestion System with the help of AR Technology and 3D Object, with the result of the students learning and using the media, not distracted easily and are motivated and focused to learn more about the content of the said media. Rahman and Lakoro (2016) created a 3D Animation based Learning Media of overall dental health for Primary School Students. The result of the implementation of the media resulted in the curiosity of the students, thus inviting motivation and interest from the students wanting to know more about the content.

Animation is a media created with the usage of computer to create moving pictures. Animation is made as interesting as possible and contains clear and concise information to deliver the said information (Kharisma, Kurniawan, & Wijaya, 2015). From the side of its creation, animation were divided into 2 types, 2D Animation and 3D Animation (Said, Cahyadi, & Arifin, 2017). Usage of animation will be more interesting for users and doesn't cause boredom (Dhiba, Wahyuni, & Hamid, 2017). Learning with animation doesn't cause saturation and boredom because it is exhibited with interesting display (Dewi, Arisawati, & Sihombing, 2017).

Hannafin and Peck Research Method, is a research method which is product oriented, and involve three main phases. The three main phases are analysis phase, designing phase and development and implementation phase. During each phase,

Assessment and evaluation have to be done accordingly before proceeding to the next phase. This is to avoid any typical error that might occur (Marwan & Hock, 2017)

With these statements stated above, we came to a conclusion and will be developing a 3D Animation based Learning Media of Big Bang Theory, whereas the title of this Thesis will be "**Developing a 3D Animation Based Learning Media of Big Bang Theory using Hannafin and Peck Research Method**".

1.2 Research Problems

This research aims to tackle problems as stated below:

1. How does one develop a 3D Animation based Learning Media of Big Bang Theory?

2. How does one develop a Learning Media using Hannafin and Peck Research Method ?

3. How does one develop an interesting Learning Media ?

1.3 Research Objectives

The research objectives of this research are as stated below:

1. We are able to develop a 3D Animation based Learning Media of Big Bang Theory using Hannafin and Peck Research Method.

2. As a requirement to obtain bachelor's degree (S-1).

3. To gain knowledge related to Animation Development.

Universitas Internasional Batam

1.4 Benefits of Research

The benefits of this Thesis are as stated below:

1. For Educators

   With the development of this Learning Media, the media is expected to be able to help educators in explaining the Big Bang event.

2. For Academics

   With the development of this Learning Media, the media is expected to be able to become a future reference in developing a 3D Animation Based Educational Media of Big Bang Theory.

3. For Researcher

   With the development of this Learning Media, the media is expected to be able to develop our knowledge related to 3D Animation Development and Hannafin and Peck Research Method.

1.5 Writing System

This Thesis consists of five main chapters with Writing System as stated below:

CHAPTER I BACKGROUNDS

Consists of the backgrounds of the problems, Research problems, Research Objectives, benefits of Research and the Writing System.

Universitas Internasional Batam

CHAPTER 2 LITERATURE REVIEWS

Consists of theories and principles to support during the development in this Thesis.

CHAPTER 3 RESEARCH METHODS

Consists of the method used in the implementation of the research and the development in this Thesis.

CHAPTER 4 IMPLEMENTATION

Consists of the implementation in this Thesis, which is the development of the Learning Media.

CHAPTER 5 CLOSING

Consists of the conclusion of the research, obstacles met and suggestions from us for future references and development.

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